

REMARKS/ARGUMENTS

Claims 1-10, 17-22 and 78-80 are active. Claim 80 finds support on page 4, line 4 of the specification. No new matter has been added. Favorable consideration and allowance of this application is respectfully requested.

The Applicants thank Examiner Wilder for the courteous and helpful interview of October 9, 2007. It was agreed that a response to the provisional obviousness type double patenting rejections could be deferred pending the identification of otherwise allowable subject matter. The description rejection was reviewed and the Applicants pointed out that claim 1 already excludes inoperative species, that is, species that do not have DNA polymerase activity. The structural limitations in claim 1 and their support in the specification was reviewed. Limitations to polypeptides active in the absence of manganese based on page 4, line 4 of the specification were also discussed. The Applicants were advised to add deposit information to the specification.

Restriction/Election

The Applicants previously elected with traverse Group I, claims 1-22, 78 and 79; the mutation M484 (mutation of the methionine residue at 484 of SEQ ID NO: 26 which corresponds to the mutation of residue 761 in the Taq polymerase) and the sequence depicted by SEQ ID NOS: 19 and 20. This requirement has now been made FINAL.

Rejection—35 U.S.C. §112, first paragraph (Deposit Requirement)

Claims 78-79 were rejected under 35 U.S.C. 112, first paragraph, as lacking adequate written descriptive support for inserts of the deposited phage strains I-3168 through I-3176. Claim 78 claims specific phage strains which have been deposited under the terms of the Budapest Treaty and the assurances provided below meet the U.S. deposit requirements.

Page 33 of the specification has been amended to refer to the address of the depository.

Accordingly, the Applicants respectfully request that this rejection be withdrawn.

Statement on Access for Biological Deposit(s)

The phage strains identified by CNCM deposits I-3168 through I-3176 were deposited under the terms of the Budapest Treaty at CNCM on February 27, 2004. As required by 37 C.F.R. 1.808, subject to the one exception permitted by 37 C.F.R. 1.808(b), all restrictions imposed by the depositor on the availability to the public of the deposited material will be irrevocably removed upon granting of the patent. See MPEP 2410.01.

Provisional Rejection—Obviousness-type Double Patenting

Claims 1-8, 17-22 and 78-79 were provisionally rejected under the judicially-created doctrine of obviousness-type double patenting as being unpatentable over Claims 1-7, 14-18 and 65-66 of copending U.S. Application No. 10/590,810. The Applicants respectfully request that this provisional double patenting rejection be held in abeyance pending the identification of otherwise allowable subject matter in the present application. Upon an indication of allowability for the pending claims, the Applicants understand that the provisional double patenting rejection will be withdrawn, provided the claims in the copending application have not been allowed, MPEP 804(I)(B).

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request that this provisional double patenting rejection be held in abeyance pending the identification of otherwise allowable subject matter in the present application. Upon an indication of allowability for the pending claims, the Applicants understand that the provisional double patenting rejection will be withdrawn, provided the claims in the copending application have not been allowed, MPEP 804(I)(B).

Rejection—35 U.S.C. §112, first paragraph

Claims 1-8, 17-22 and 78-79 were rejected under 35 U.S.C. 112, first paragraph, as lacking adequate written description. The Official Action asserts that the claims lack adequate description for use of the limitations “95% identity to SEQ ID NO: 26” (claim 1) and “97.5% identity to SEQ ID NO: 26” (claim 5), wherein the polypeptides have a mutation at residue 484 of SEQ ID NO: 26 which replaces Met with a different amino acid residue.

Initially, the 95% and 97.5% limitations are explicitly disclosed on page 23, line 5 and page 25, line 15 of the specification. Moreover, the functional activity of these polypeptides “DNA polymerase activity” required by claim 1 is disclosed at least on page 29, lines 4-5. Line 18 on page 33 describes replacement of Met at position 484 with another amino acid. Accordingly, there is explicit descriptive support for the invention as claimed.

This rejection indicates that only a few sequences falling within the claimed genus (e.g., M484V and M484T) have been exemplified, see the last paragraph on page 6 of the Official Action. However, exemplification of a representative number of species to define a genus is only one way to provide adequate description. MPEP 2163 indicates:

The written description requirement for a claimed genus may be satisfied through sufficient description of a representative number of species by actual reduction to practice. . . , reduction drawings. . . , or by disclosure of relevant identifying characteristics, **i.e., structure or other physical and/or chemical properties, by functional characteristics coupled with a known or disclosed relationship between function and structure.** . . . (emphasis added)

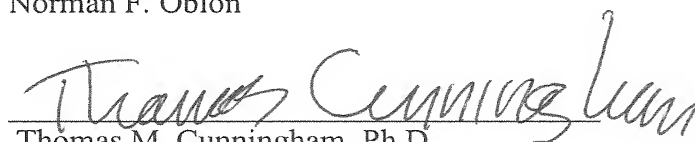
Here the Applicants have structurally described the claimed genus by reference to at least a 95% or 97.5% structural identity to a known sequence (SEQ ID NO: 26), they have identified the amino acid residue that is mutated (i.e., replacing Met at 484 with another amino acid), and they have specified a functional activity and chemical property ("DNA polymerase activity"). Furthermore, at least two species falling within the claimed genus have been exemplified. Accordingly, this rejection should now be withdrawn.

Conclusion

In view of the amendments and remarks above, the Applicants respectfully submit that this application is in condition for allowance. An early notification of such is earnestly requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon

A handwritten signature in cursive script, reading "Thomas M. Cunningham". The signature is written in dark ink and is positioned above a horizontal line.

Thomas M. Cunningham, Ph.D.
Registration No. 45,394

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
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